UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,203	09/18/2003	Foster D. Hinshaw	3336.1008-001	7168

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EXAMINER
LOVEL, KIMBERLY M

ART UNIT	PAPER NUMBER
2167	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/667,203	HINSHAW ET AL.
	Examiner	**Art Unit**	
	KIMBERLY LOVEL	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _17 March 2008_.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-14_ is/are pending in the application.
      4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-14_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
      Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
      Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
      a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
      Paper No(s)/Mail Date _3/17/08_.
4) ☐ Interview Summary (PTO-413)
      Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   This communication is in response to the Amendment filed 17 March 2008.

2.   Claims 1-14 are currently pending. In the Amendment filed 17 March 2008,

claims 1, 5 and 6 are amended. This action is made Final.

3.   The prior art rejections presented in the Non-Final Rejection mailed on 14

November 2007 have been withdrawn as necessitated by the amendment.

Information Disclosure Statement

4.   The information disclosure statement (IDS) submitted on 17 March 2008 was

filed after the mailing date of the Non-Final Rejection on 14 November 2008. The

submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the

information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the

various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the

obligation under 37 CFR 1.56 to point out the inventor and invention dates of each

claim that was not commonly owned at the time a later invention was made in order

for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35

U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6.   **Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

US Patent No 6,434,649 to Baker et al (hereafter Baker) in view of US PGPub

2003/0126056 to Hausman et al (hereafter Hausman).

        Referring to claim 1, Baker discloses a Programmable Streaming Data

Processor (PSDP) arranged to perform primitive initial processing functions directly on a

set of data (see abstract; column 1, lines 48-58; and Fig 1A, item 100 – the multimedia

processor is considered to represent the programmable streaming data processor since

it comprises of the same components and is a data processor for streaming which can be programmed), comprising:

a streaming data interface, arranged to receive data from a streaming data source (see column 5, lines 59-68 and Fig 1, items 122 and 132);

a streaming interface First In First Out (FIFO) [first-in-first-out buffer], arranged to temporarily store streaming data from the streaming data interface (see column 17, lines 25-45; column 18, lines 13-22; and Fig 7, item 716 – the interface uses a first-in-first-out buffer; according to the 5th Edition of Microsoft's Computer Dictionary, the definition of a buffer states "a region of memory reserved for use as an intermediate repository in which data is temporarily held while waiting to be transferred between two locations or devices"); and

an output First In First Out (FIFO) device, for forming tuples [outgoing data] and temporarily storing them prior to conditionally forwarding them to the Job Processing Unit (see column 18, lines 18-22 and column 30, lines 22-32).

Baker discloses a Programmable Streaming Data Processor (PSDP) which is arranged to perform primitive functions directly on data received from a streaming data interface, however, Baker et al fails to explicitly teach the further limitations of the data engine and the tuple generator.

Hausman discloses a streaming data interface arranged to receive data from a streaming data source [application(s) 122 and database(s) 121] (see [0039], lines 10-15; [0043], lines 15-16), a streaming interface arranged to temporarily store streaming data from the streaming data interface [queue 108] (see [0043], lines 15-16) and the

further limitations of a data engine, arranged to receive output data from the streaming interface, determine field boundaries therein, and process fields to select one or more fields to be assembled into output tuples, the data engine also containing logic arranged to determine whether an output tuple is to be selected for further processing by additional processing Job Processing Units (JPUs) and to assert a use or lose decision value according to that determination [re-ordering, deleting, editing and/or adding elements] (see [0045]; [0048]; and [0057]); a tuple generator, arranged to assemble fields into the output tuple and, if the use or lose decision value indicates that such the output tuple is to be discarded, to prevent the output tuple from being transferred for further processing by the JPU (see [0065]); and an output device arranged to temporarily store tuples prior to conditionally forwarding them to the JPU [cache records until users are ready to use them] (see [0071]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to Hausman's method of filtering data as a subcomponent to Baker et al's Data Streamer. One would have been motivated to do so since it is well known to one of ordinary skill that filtering provides customized distribution of data and also decreases that the amount of information sent across the network (Hausman: see [0005]).

Referring to claim 2, the combination of Baker and Hausman (hereafter Baker/Hausman) discloses an apparatus as in claim 1 wherein the use or lose value indicates a result from logic processing of fields read from the streaming data interface (Baker: see column 17, line 52 – column 18, line 12).

Referring to claim 3, Baker/Hausman discloses an apparatus as in claim 1

wherein the use or lose decision value indicates a result from Transaction Identifier

(TID) processing (Hausman: see [0063] and [0064]).

Referring to claim 4, Baker/Hausman discloses an apparatus as in claim 3

wherein the TID processing and data engine logic execute in parallel (Hausman: see

[0063] and [0064]).

Referring to claim 5, Baker/Hausman discloses an apparatus as in claim 1

wherein the output tuple is greater in length than an expected predetermined size, and

the use or lose decision value is then used to set an overflow field in the output tuple

(Baker et al: see column 18, lines 56-64).

Referring to claim 6, Baker/Hausman discloses an apparatus as in claim 5

wherein the use or lose decision value is not asserted when a buffer local to the

programmable data streaming processor is full; and means for appending an overflow

filter bit to a tuple that indicates a transfer of a tuple that should be ignored (Baker: see

column 18, lines 56-64).

Referring to claim 7, Baker/Hausman discloses an apparatus as in claim 1

additionally comprising: a Direct Memory Access (DMA) interface, coupled to the output

FIFO, to provide direct access to a memory in the Job Processing Unit (Baker: see

column 6, lines 24-25 and column 19, lines 15-25).

Referring to claim 8, Baker/Hausman discloses an apparatus as in claim 1

wherein the use or lose value is used to reset the output FIFO write pointer so any prior

fields in the present tuple are discarded (Baker: see column 12, lines 18-34 – after the

data is written, it is considered to be removed from the temporary storage of the buffer,

therefore being deleted).

Referring to claim 9, Baker/Hausman discloses an apparatus as in claim 1

wherein the overflow filter bit is inserted in a length field appended to record fragments

(Baker: see column 34, lines 56-62).

Referring to claim 10, Baker/Hausman discloses an apparatus as in claim 1

wherein an invalid field is appended to a tuple to indicate the results of transaction ID

processing (Baker: see column 12, line 62 – column 13, line 16).

Referring to claim 11, Baker/Hausman discloses an apparatus as in claim 10

wherein the invalid field indicates that the TID mode marks return tuple (Baker: see

column 12, line 62 – column 13, line 16).

Referring to claim 12, Baker/Hausman discloses an apparatus as in claim 10

wherein the invalid field indicates that the tuple should not have been returned but the

output FIFO overflowed (Baker: see column 31, lines 10-22 and column 34, lines 56-

62).

Referring to claim 13, Baker/Hausman discloses an apparatus as in claim 1

further comprising: a register reflecting the final PSDP status which is read by the CPU

to identify whether any overflow or TID status bits are set in any of the tuples (Baker:

see column 29, line 63 – column 30, line 21).

Referring to claim 14, Baker/Hausman discloses an apparatus as in claim 1

wherein the use or lose decision value represents DeMorgan's Law reduction of multiple

instructions (Baker: see column 5, lines 25-34).

Response to Arguments

7.   Applicant's arguments filed in regards to claim 1 have been fully considered but they are not persuasive. On page 7 of the Remarks, the applicants argue that Baker fails to disclose an output device. The examiner respectfully disagrees. Column 18, lines 18-22 state that the data transfer engine handles incoming and outgoing data and that this data is stored in a first-in-first-out buffer.

8.   Applicant's arguments with respect to claims 2-14 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMBERLY LOVEL whose telephone number is (571)272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John R. Cottingham/   Kimberly Lovel
Supervisory Patent Examiner, Art Unit 2167   Examiner
                                                      Art Unit 2167

7 June 2008
kml